

Title (en)

SYSTEM AND METHOD FOR CHANNEL INFORMATION FEEDBACK IN A WIRELESS COMMUNICATIONS SYSTEM

Title (de)

SYSTEM UND VERFAHREN FÜR KANALINFORMATIONSRÜCKMELDUNG IN EINEM DRAHTLOSKOMMUNIKATIONSSYSTEM

Title (fr)

SYSTÈME ET PROCÉDÉ DE RÉTROACTION D'INFORMATIONS DE CANAL DANS UN SYSTÈME DE COMMUNICATION SANS FIL

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Application

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Abstract (en)

[origin: WO2010102583A1] A system and method for channel information feedback in a wireless communications system is provided. A method for communications device operation includes receiving a pilot transmitted by a controller, computing a channel estimate for a channel between the controller and a communications device, the computing based on the pilot, computing a channel correlation matrix for the channel based on the channel estimate, and transmitting a reduced rank representation of the channel correlation matrix to the controller as a first feedback information. The method also includes adapting a first codebook based on the reduced rank representation of the channel correlation matrix, computing a representation of the channel using the adapted codebook, transmitting the representation of the channel as a second feedback information, and receiving a transmission beamformed based on the first feedback information and the second feedback information.

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